



GREEN INFRASTRUCTURE: RAIN GARDENS

In 2009, Mayor Greg Ballard created a partnership between the Indianapolis Department of Public Works and the City's Office of Sustainability to pilot green infrastructure on several capital improvement projects implemented in 2010. Under the Mayor's bold and innovative SustainIndy program, in 2011 the City is more widely integrating green infrastructure under the new RebuildIndy program – a program to rehabilitate streets, sidewalks and bridges across Indianapolis.



Rain gardens can beautify the landscape while helping filter pollutants from storm water.

Green infrastructure compared to traditional storm water infrastructure can:

- Reduce flooding in streets, yards and basements
- Increase storm water infiltration into the ground
- Naturally filter pollutants from storm water runoff picked up from roofs, streets, parking lots and lawns
- Reduce costs of treating clear water entering the sewer system
- Help reduce combined sewer overflows

WHAT IS GREEN INFRASTRUCTURE

Green infrastructure is a method of controlling storm water runoff and improving water quality using natural methods. Green concepts can enhance energy efficiency, reduce storm water runoff and reduce water usage through the collection of storm water. Green infrastructure can be used alone or in conjunction with traditional drainage solutions, such as underground storm drain pipe

Rain gardens are only one type of green infrastructure the City is exploring for cost savings, improved water quality and enhanced quality of life. Porous pavement on streets, sidewalks and alleys also provides benefits for Indianapolis residents.

WHAT IS A RAIN GARDEN

Rain gardens allow for more infiltration than turf grass lawns or conventional landscaping. Storm water travels through the plant roots and the soil, filtering out contaminants, bacteria and nutrients typically found in storm water runoff. As storm water flows through and is absorbed by the rain garden, soil and plant roots use natural processes to improve water quality by filtering pollutants from storm water. Rain gardens are effective in removing up to 90 percent of nutrients and chemicals and up to 80 percent of sediments from storm water runoff. Compared to a conventional lawn, rain gardens allow 30 percent more water to soak into the ground.

Rain gardens, which are planted in low-lying areas, are designed to catch storm water runoff from downspouts, driveways, parking lots and roads. These gardens are planted with deep-rooted, native

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“Rain gardens make a considerable positive impact on water quality and help beautify our public spaces.”

- Mayor Greg Ballard

plants that thrive on, absorb and slow storm water, which reduces flooding and filters pollutants from storm water before it enters a waterway.

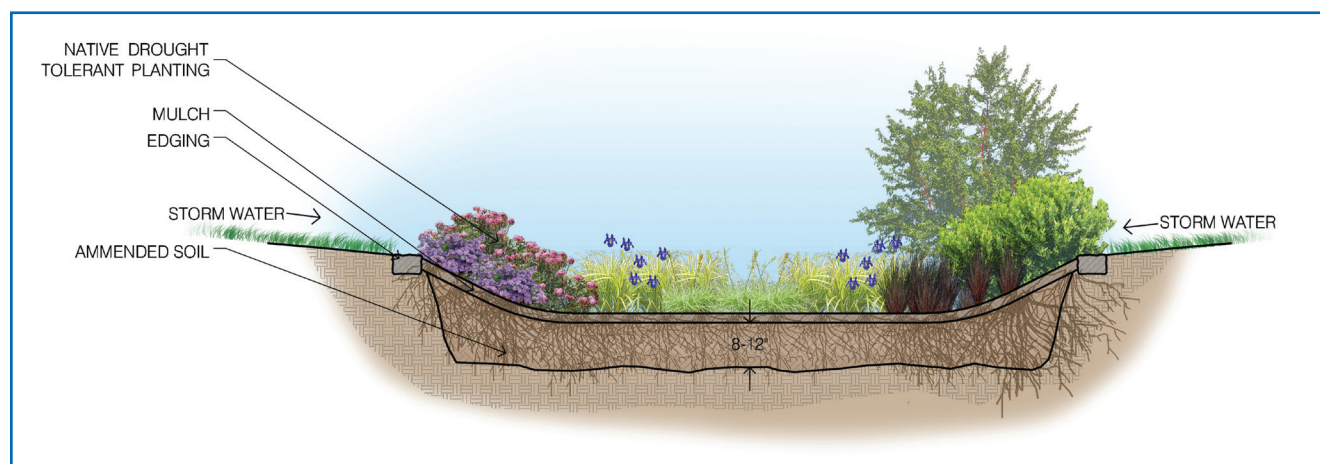
Rain gardens reduce the amount of storm water runoff and reduce drainage and flooding concerns in neighborhoods.

RAIN GARDENS IN INDIANAPOLIS

- Ohio Street
- Alabama Street
- Indianapolis Cultural Trail
- Private development projects at Keep Indianapolis Beautiful
- Indianapolis Museum of Art
- The Athenaeum
- The Nature Conservancy.

RAIN GARDEN MAINTENANCE

While a rain garden provides a lot of benefits, DPW considers several variables when evaluating its appropriateness for an infrastructure project, including maintenance and upkeep. Rain gardens require minimal maintenance, such as watering during the initial installation to ensure the plant roots take hold. In addition, the rain gardens require occasional weeding as well as cleaning up any litter that might accumulate in the space. In some cases, the City seeks commitments from neighborhoods or other partners to oversee these types of maintenance efforts before a new rain garden can be installed.



Rains gardens improve storm water quality by filtering pollutants through plants, soil, sand and gravel.

Mayor Ballard launched SustainIndy and created the Office of Sustainability in October, 2008. SustainIndy is a bold and innovative enterprise aimed at delivering long-term cost savings to the City, building the local economy, improving our quality of life and enhancing our environmental and public health. Its efforts are designed to aggressively move Indianapolis forward in making it one of the most sustainable cities in the Midwest.